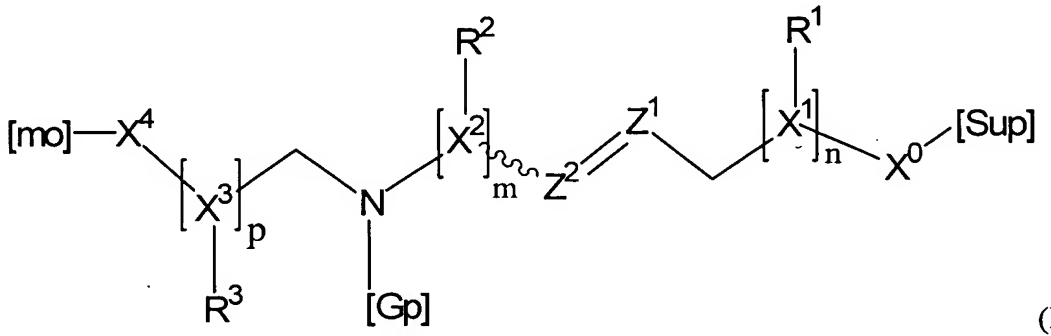
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-26. (Cancelled)

27. (New) Molecular spacer arm of formula (I) below:



(I)

- wherein X^0 and X^4 are substituents which can be modulated so as to allow bonding of [mo] and [Sup] via said spacer arm, X^0 and X^4 being different from H and each being chosen, independently of the other substituents of the spacer arm, from C, O, N, S, Se, P, As and Si; and

- wherein the substituents X^1, X^2, X^3, Z^1, Z^2, R^1, R^2, and R^3 are such that:

- X^1, X^2, and X^3 are each chosen, independently of the other substituents, from C, O, N, S, Se, P, As and Si, and from an aryl and a heteroaryl, each containing from 2 to 20 carbon atoms;
- Z^1 and Z^2 are each chosen, independently of the other substituents, from C-R, Si-R, C, N, P and As, where R is an alkyl containing from 1 to 40 carbon atoms;
- R^1, R^2, and R^3 are each chosen, independently of the other substituents, from H, an alkyl, an aryl and a heteroaryl each containing from 2 to 20 carbon atoms;
- [Gp] represents a group which protects the secondary amine –N- or a molecule which participates in the functionality of the spacer arm;

- wherein n, m and p are integers, each greater than or equal to 1 and chosen independently of one another;
- wherein [Sup] represents H or a silanized solid support; and
- wherein [mo] represents H or a molecular unit.

28. (New) Molecular spacer arm according to claim 27 wherein $1 \leq n, m$ and $p \leq 40$.

29. (New) Molecular spacer arm according to Claim 27, wherein

- X^0 and X^4 are chosen, independently of the other substituents, from C, O, N, S and Si; and/or
- X^1, X^2, and X^3 are chosen, independently of the other substituents, from C, O, N, S and Si, and from an aryl and a heteroaryl each containing from 2 to 10 carbon atoms; and/or
- Z^1 and Z^2 are chosen, independently of the other substituents, from C, N, C-R and Si-R, where R is an alkyl containing from 1 to 30 carbon atoms; and/or
- R^1, R^2, and R^3 are chosen, independently of the other substituents, from H, an alkyl, an aryl and a heteroaryl each containing from 2 to 10 carbon atoms.

30. (New) Molecular spacer arm according to Claim 27, wherein the protective group [Gp] is chosen from Ac, benzyl, a C_1 to C_{40} aryl group, Troc, z, TCA, BOC and Fmoc.

31. (New) Molecular spacer arm according to Claim 27, wherein the solid support [Sup], when it is present, is chosen from a plate, a bead or a capillary.

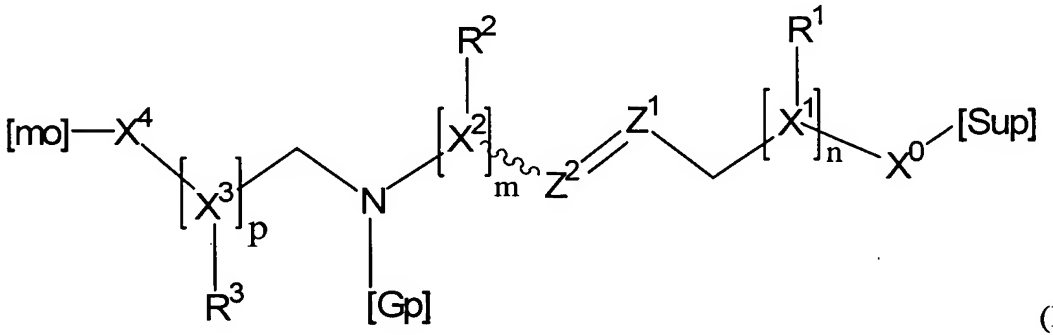
32. (New) Molecular spacer arm according to Claim 27, wherein [Sup] is silica-based or glass-based.

33. (New) Molecular spacer arm according to Claim 27, wherein [mo], when it is present, is a molecule having a molecular weight ranging from 180 to 400 000 $g.mol^{-1}$.

34. (New) Molecular spacer arm according to Claim 27, wherein [mo], when it is present, is chosen from monosaccharides, oligosaccharides, polyoligosaccharides, glycoconjugates, peptides, proteins, enzymes, glycoproteins, lipids, fatty acids, glycolipids and glycolipoproteins.

35. (New) Molecular spacer arm according to Claim 27, wherein [mo], when it is present, is a sugar.

36. (New) A process for attaching a molecular unit [mo] to a silanized solid support [Sup] comprising covalently attaching the molecular unit to the silanized solid support through a molecular spacer arm according to formula (I):



(I)

- wherein X^0 and X^4 are substituents which can be modulated so as to allow bonding of [mo] and [Sup] via said spacer arm, X^0 and X^4 being different from H and each being chosen, independently of the other substituents of the spacer arm, from C, O, N, S, Se, P, As and Si; and

- wherein the substituents X^1, X^2, X^3, Z^1, Z^2, R^1, R^2, and R^3 are such that:

- X^1, X^2, and X^3 are each chosen, independently of the other substituents, from C, O, N, S, Se, P, As and Si, and from an aryl and a heteroaryl, each containing from 2 to 20 carbon atoms;
- Z^1 and Z^2 are each chosen, independently of the other substituents, from C-R, Si-R, C, N, P and As, where R is an alkyl containing from 1 to 40 carbon atoms;
- R^1, R^2, and R^3 are each chosen, independently of the other substituents, from H, an alkyl, an aryl and a heteroaryl each containing from 2 to 20 carbon atoms;
- [Gp] represents a group which protects the secondary amine –N- or a molecule which participates in the functionality of the spacer arm; and

- wherein n, m and p are integers, each greater than or equal to 1 and chosen independently of one another.

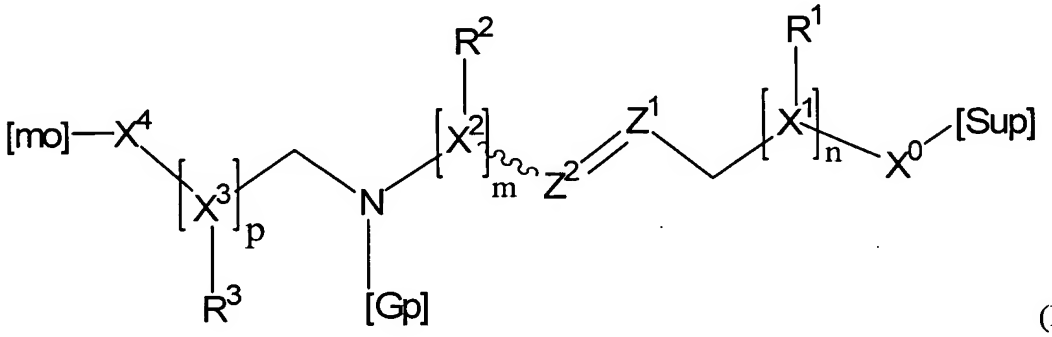
37. (New) A process according to Claim 36, wherein [mo] is a molecule having a molecular weight ranging from 180 to 400 000 $g.mol^{-1}$.

38. (New) A process according to Claim 36, wherein [mo] is chosen from monosaccharides, oligosaccharides, polyoligosaccharides, glycoconjugates, and natural or synthetic small molecules.

39. (New) A process according to Claim 36, wherein [Sup] is chosen from a plate, beads or a capillary.

40. (New) A process according to Claim 39, wherein [Sup] is silica-based or glass-based.

41. (New) A process for producing a biochip comprising attaching a molecular unit [mo] to a silanized solid support [Sup], by a process comprising covalently attaching the molecular unit to the silanized solid support through a molecular spacer arm according to formula (I):



(I)

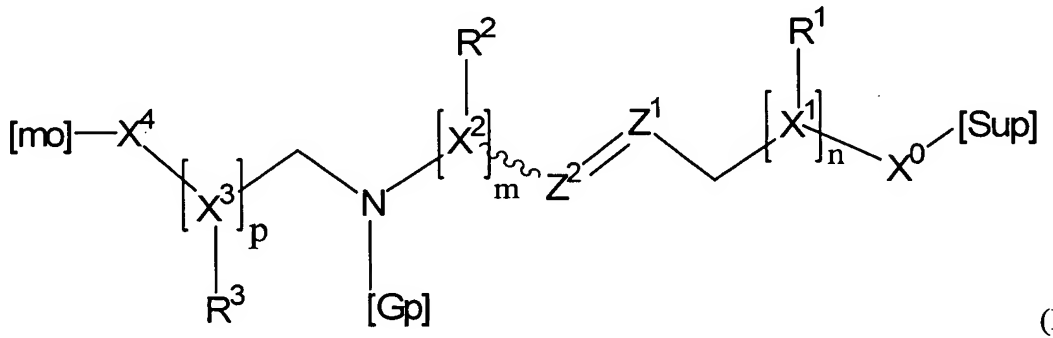
- wherein X^0 and X^4 are substituents which can be modulated so as to allow bonding of [mo] and [Sup] via said spacer arm, X^0 and X^4 being different from H and each being chosen, independently of the other substituents of the spacer arm, from C, O, N, S, Se, P, As and Si; and

- wherein the substituents X^1, X^2, X^3, Z^1, Z^2, R^1, R^2, and R^3 are such that:

- X^1, X^2, and X^3 are each chosen, independently of the other substituents, from C, O, N, S, Se, P, As and Si, and from an aryl and a heteroaryl, each containing from 2 to 20 carbon atoms;
- Z^1 and Z^2 are each chosen, independently of the other substituents, from C-R, Si-R, C, N, P and As, where R is an alkyl containing from 1 to 40 carbon atoms;

- R^1, R^2, and R^3 are each chosen, independently of the other substituents, from H, an alkyl, an aryl and a heteroaryl each containing from 2 to 20 carbon atoms;
- [Gp] represents a group which protects the secondary amine –N- or a molecule which participates in the functionality of the spacer arm; and
  - wherein n, m and p are integers, each greater than or equal to 1 and chosen independently of one another.

42. (New) A process for producing a glycochip comprising attaching a molecular unit [mo] to a silanized solid support [Sup] by a process comprising covalently attaching the molecular unit to the silanized solid support through a molecular spacer arm according to formula (I):



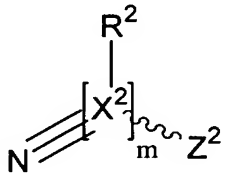
(I)

- wherein X^0 and X^4 are substituents which can be modulated so as to allow bonding of [mo] and [Sup] via said spacer arm, X^0 and X^4 being different from H and each being chosen, independently of the other substituents of the spacer arm, from C, O, N, S, Se, P, As and Si; and
  - wherein the substituents X^1, X^2, X^3, Z^1, Z^2, R^1, R^2, and R^3 are such that:
- X^1, X^2, and X^3 are each chosen, independently of the other substituents, from C, O, N, S, Se, P, As and Si, and from an aryl and a heteroaryl, each containing from 2 to 20 carbon atoms;
- Z^1 and Z^2 are each chosen, independently of the other substituents, from C-R, Si-R, C, N, P and As, where R is an alkyl containing from 1 to 40 carbon atoms;
- R^1, R^2, and R^3 are each chosen, independently of the other substituents, from H, an alkyl, an aryl and a heteroaryl each containing from 2 to 20 carbon atoms;
- [Gp] represents a group which protects the secondary amine –N- or a molecule which participates in the functionality of the spacer arm; and

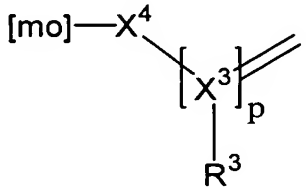
- wherein n, m and p are integers, each greater than or equal to 1 and chosen independently of one another.

43. (New) Process for the covalent attachment of a molecular unit [mo] to a support by means of a spacer arm, said process comprising the following steps:

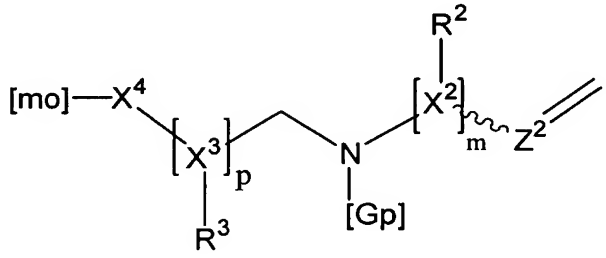
(i) reduction of the nitrile function of a compound of formula:



(ii) formation of an aldehyde function from an allyl function of a biological molecule of formula:

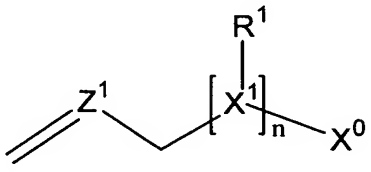


(iii) reductive amination, followed by protection of the secondary amine formed, between said reduced nitrile function and said aldehyde function, so as to obtain a biological molecule which has been activated so as to be attached to the support, said activated biological molecule being of formula:



;

(iv) silanization of a solid support, and functionalization of the silanized solid support with a molecule of formula:



(v) metathesis reaction between the molecule functionalizing the support and the activated biological molecule so as to form a spacer arm connecting the biological molecule and the support;

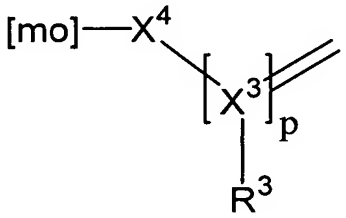
- wherein X^0 and X^4 are substituents which can be modulated so as to allow bonding of [mo] and the support via said spacer arm, X^0 and X^4 being different from H and each being chosen, independently of the other substituents of the spacer arm, from C, O, N, S, Se, P, As and Si; and

- wherein the substituents X^1, X^2, X^3, Z^1, Z^2, R^1, R^2, and R^3 are such that:

- X^1, X^2, and X^3 are each chosen, independently of the other substituents, from C, O, N, S, Se, P, As and Si, and from an aryl and a heteroaryl, each containing from 2 to 20 carbon atoms;
- Z^1 and Z^2 are each chosen, independently of the other substituents, from C-R, Si-R, C, N, P and As, where R is an alkyl containing from 1 to 40 carbon atoms;
- R^1, R^2, and R^3 are each chosen, independently of the other substituents, from H, an alkyl, an aryl and a heteroaryl each containing from 2 to 20 carbon atoms;
- [Gp] represents a group which protects the secondary amine –N- or a molecule which participates in the functionality of the spacer arm; and

- wherein n, m and p are integers, each greater than or equal to 1 and chosen independently of one another.

44. (New) Process according to Claim 43, in which the compound of formula



is an allylated sugar, [mo] being said sugar.

45. (New) Process according to Claim 43, in which [Sup] is chosen from a plate, a bead or a capillary.

46. (New) Process according to Claim 43, in which [Sup] is silica-based or glass-based.

47. (New) Process according to Claim 43, in which [mo] is a molecule having a molecular weight ranging from 180 to 400 000 $g.mol^{-1}$.

48. (New) Process according to Claim 43, in which [mo] is chosen from monosaccharides, oligosaccharides, polyoligosaccharides, glycoconjugates, peptides, proteins, enzymes, glycoproteins, lipids, fatty acids, glycolipids and glycolipoproteins.

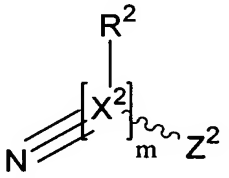
49. (New) Process according to Claim 43, in which [mo] is a sugar.

50. (New) Process according to Claim 43, further comprising a step consisting of attachment of a protective group [Gp] to the secondary amine function.

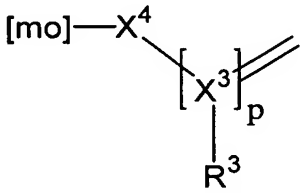
51. (New) Process according to Claim 50, wherein [Gp] is chosen from Ac, benzyl, a C_1 to C_{40} aryl group, Troc, z, TCA, BOC and Fmoc.

52. (New) A process for producing a biochip comprising covalently attaching a molecular unit [mo] to a support by means of a spacer arm by the following steps:

(i) reduction of the nitrile function of a compound of formula:

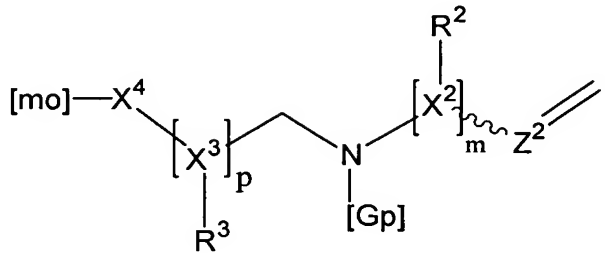


(ii) formation of an aldehyde function from an allyl function of a biological molecule of formula:



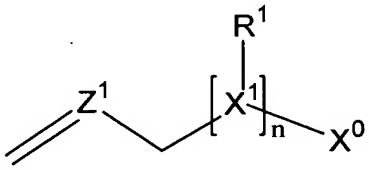
(iii) reductive amination, followed by protection of the secondary amine formed, between said reduced nitrile function and said aldehyde function, so as to obtain a biological

molecule which has been activated so as to be attached to the support, said activated biological molecule being of formula:



;

(iv) silanization of a solid support, and functionalization of the silanized solid support with a molecule of formula:



(v) metathesis reaction between the molecule functionalizing the support and the activated biological molecule so as to form a spacer arm connecting the biological molecule and the support;

- wherein X^0 and X^4 are substituents which can be modulated so as to allow bonding of [mo] and the support via said spacer arm, X^0 and X^4 being different from H and each being chosen, independently of the other substituents of the spacer arm, from C, O, N, S, Se, P, As and Si; and

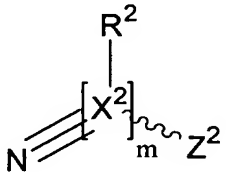
- wherein the substituents X^1, X^2, X^3, Z^1, Z^2, R^1, R^2, and R^3 are such that:

- X^1, X^2, and X^3 are each chosen, independently of the other substituents, from C, O, N, S, Se, P, As and Si, and from an aryl and a heteroaryl, each containing from 2 to 20 carbon atoms;
- Z^1 and Z^2 are each chosen, independently of the other substituents, from C-R, Si-R, C, N, P and As, where R is an alkyl containing from 1 to 40 carbon atoms;
- R^1, R^2, and R^3 are each chosen, independently of the other substituents, from H, an alkyl, an aryl and a heteroaryl each containing from 2 to 20 carbon atoms;
- [Gp] represents a group which protects the secondary amine –N- or a molecule which participates in the functionality of the spacer arm; and

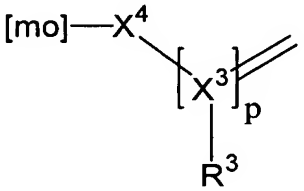
- wherein n, m and p are integers, each greater than or equal to 1 and chosen independently of one another.

53. (New) A process for producing a glycochip comprising covalently attaching a molecular unit [mo] to a support by means of a spacer arm the following steps:

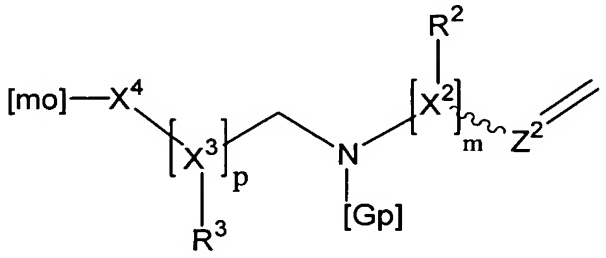
(i) reduction of the nitrile function of a compound of formula:



(ii) formation of an aldehyde function from an allyl function of a biological molecule of formula:

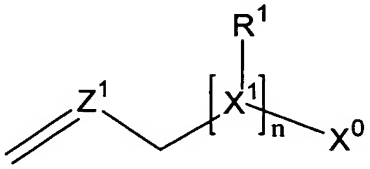


(iii) reductive amination, followed by protection of the secondary amine formed, between said reduced nitrile function and said aldehyde function, so as to obtain a biological molecule which has been activated so as to be attached to the support, said activated biological molecule being of formula:



;

(iv) silanization of a solid support, and functionalization of the silanized solid support with a molecule of formula:



(v) metathesis reaction between the molecule functionalizing the support and the activated biological molecule so as to form a spacer arm connecting the biological molecule and the support;

- wherein X^0 and X^4 are substituents which can be modulated so as to allow bonding of [mo] and the support via said spacer arm, X^0 and X^4 being different from H and

each being chosen, independently of the other substituents of the spacer arm, from C, O, N, S, Se, P, As and Si; and

- wherein the substituents X^1, X^2, X^3, Z^1, Z^2, R^1, R^2, and R^3 are such that:

- X^1, X^2, and X^3 are each chosen, independently of the other substituents, from C, O, N, S, Se, P, As and Si, and from an aryl and a heteroaryl, each containing from 2 to 20 carbon atoms;
- Z^1 and Z^2 are each chosen, independently of the other substituents, from C-R, Si-R, C, N, P and As, where R is an alkyl containing from 1 to 40 carbon atoms;
- R^1, R^2, and R^3 are each chosen, independently of the other substituents, from H, an alkyl, an aryl and a heteroaryl each containing from 2 to 20 carbon atoms;
- [Gp] represents a group which protects the secondary amine –N- or a molecule which participates in the functionality of the spacer arm; and

- wherein n, m and p are integers, each greater than or equal to 1 and chosen independently of one another.